



EMBANKMENT PROTECTION FIELD SECTION 611

611.10 Rock Fill.

611.10.1 Scope. To establish procedures for inspecting and reporting stone or broken concrete for use in rock fill.

611.10.2 Apparatus. Rule with suitable graduations to accurately measure the material to be inspected.

611.10.3 Procedure. The stone or broken concrete shall be visually inspected for quality and size. A sufficient number of individual pieces shall be measured to determine compliance with Specification Sec 611.12. No Laboratory samples are required.

611.10.4 Report. The material shall be reported on Form T-634 in accordance with [Automation Sec AS-3530](#) of this Manual. Under the remarks section the statement "Visual Inspection" shall be shown.

611.20 Fully Grouted Rock Fill.

611.20.1 Scope. To establish procedures for inspecting and reporting materials for use in fully grouted rock fill. Portland cement shall be inspected and reported in accordance with [Field Sec 1019](#) of this Manual.

611.20.2 Procedure.

611.20.2.1 Stone or broken concrete shall be inspected in accordance with paragraph 611.13 of this Section.

611.20.2.2 Fine aggregate for use in grout shall be inspected for quality and gradation. Material meeting the quality requirement of Specification Sec 1005 is acceptable for use in grout. Sieve analysis shall be performed in accordance with [Field Sec 1001.5.1](#) of this Manual to determine compliance with Specification Sec 611.22.3.

611.20.2.3 Grout shall be proportioned and inspected in accordance with [Field Sec 1066](#) of this Manual. The inspector shall determine that the mix proportions are in compliance with Specification Sec 611.22.3.

611.20.3 Report.

611.20.3.1 Stone and Broken Concrete. Stone and broken concrete shall be reported on Form T-634 in accordance with [Automation Sec AS-3530](#) of this Manual. Under the remarks section the statement "Visual Inspection" shall be shown.

611.20.3.2 Sand. Sand shall be reported on Form T-602 in accordance with [Automation Sec AS-3120](#) of this Manual.

611.20.3.3 Grout. Grout shall be reported on form C-681 in accordance with [Field Sec 1066](#) of this Manual.

611.30 Rock Blanket.

611.30.1 Scope. To establish procedures for inspecting and reporting stone or broken concrete for use in rock blanket.

611.30.2 Apparatus. Rule with suitable graduations to accurately measure the material to be inspected.



611.30.3 Procedure. Stone or broken concrete shall be visually inspected for quality and size. A sufficient number of individual pieces shall be measured to determine compliance with Specification Sec 611.32. No Laboratory samples are required.

611.30.4 Report. The stone or broken concrete shall be reported on Form T-634 in accordance with [Automation Sec AS-3530](#) of this Manual. Under the remarks section the statement "Visual Inspection" shall be shown.

611.40 Grouted Rock Surface.

611.40.1 Scope. To establish procedures for inspecting and reporting grout for use in grouted rock surface.

611.40.2 Procedure. Grout shall be proportioned, inspected, and reported in accordance with Field Sec 611.20 of this Section.

611.50 Revetment.

611.50.1 Scope. To establish procedures for inspecting and reporting stone, broken concrete, concrete blocks, and grout for use in revetment. Portland cement concrete, if used, will be inspected and reported in accordance with the applicable sections of this Manual and the Construction Manual.

611.50.2 Apparatus.

- (a) Rule with suitable graduations to accurately measure the material to be inspected.
- (b) Scale accurate to within 0.5 percent of the weight [mass] of the sample to be weighed.

611.50.3 Procedure. Stone, concrete blocks, broken concrete, and fine aggregate for use in grout shall be visually inspected for size, quality, and weight [mass], as applicable. The inspector shall insure that acceptable portland cement concrete was used in the manufacture of the concrete blocks. A sufficient number of individual pieces shall be measured to determine compliance with Specification Sec 611.52. If visual inspection indicates questionable compliance with the weight [mass] requirements, a sufficient number of individual pieces shall be weighed to determine if the material is in compliance with the Specifications. The inspector shall insure that the basic ingredients and mix design for grout are in accordance with Specification Sec 611.52.5.

611.50.4 REPORT.

611.50.4.1 Stone and Broken Concrete. Stone and broken concrete shall be reported on Form T-634 in accordance with [Automation Sec AS-3530](#) of this Manual. Under the remarks section the statement "Visual Inspection" shall be shown.

611.50.4.2 Sand. Sand shall be reported on Form T-602 in accordance with [Automation Sec AS-3120](#) of this Manual.

611.50.4.3 Concrete Blocks. Concrete blocks shall be reported on Form T-634 in accordance with [Automation Sec AS-3530](#) of this manual. The report is to indicate acceptance, qualified acceptance, or rejection. Appropriate remarks, as described in [General Sec 7.1.2](#) of this Manual, are to be included in the report to clarify conditions of acceptance or rejection.

611.50.4.4 Grout. Grout shall be reported on form C-681 in accordance with [Field Sec 1066](#) of this Manual.

611.60 Concrete Slope Protection. The Materials Division does not normally perform field inspection on this item.

